AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Listing of Claims:

Claims 1-10 (Canceled).

Claim 11 (Currently Amended): ~~An~~ A manufacturing apparatus for manufacturing a control rod of a nuclear reactor, the control rod comprising a blade including neutron absorbers inserted in a recess portion of a sheath formed by bending, a tie rod for fixing the blade, a handle fixed to the tie rod and an upper end of the blade, and a lower-blade fixed to the tie rod and a lower end of the blade, said manufacturing apparatus comprising a welding apparatus configured to weld ~~for welding~~ the blade to the tie rod, the blade to the handle and the blade to the lower-blade, said welding apparatus comprising:

an image pickup apparatus configured to pick up ~~for picking up~~ images ~~of a portion~~ of ~~near~~ a predesigned groove of objects to be welded, wherein said image pick up is performed before welding;

a first work head on which the ~~an~~ image pickup apparatus is mounted;

a moving apparatus configured to move ~~for moving~~ the first work head to ~~a~~ the predesigned groove ~~position as designed in each of welding portions~~;

a first image processing apparatus configured to process ~~for processing an~~ at least one image ~~signal~~ picked up by the image pickup apparatus;

a detecting apparatus configured to detect ~~for detecting an actual groove~~ a position of the predesigned groove based on the at least one image ~~data~~ processed by the first image processing apparatus;

a first arithmetic processing apparatus configured to compare ~~for comparing the~~ a ~~actual groove~~ position detected by the detecting apparatus with a nominal ~~groove~~ position of the ~~as designed~~ predesigned groove, and configured to calculate ~~calculating~~ a deviation of the first work head from the ~~groove~~ nominal position of the groove; and

a first control apparatus configured to provide ~~for providing~~ the moving apparatus with a control command to move the first work head by a distance corresponding to an amount of the deviation of the first work head calculated by the first arithmetic processing apparatus plus an amount of an offset between [[of]] the first work head and the image pickup apparatus~~; and a starting apparatus for starting welding after completion of movement of the first work head~~ so as to move the first work head in a position to perform welding.

Claim 12-14 (Cancelled).

Claim 15 (New): The manufacturing apparatus according to Claim 11, wherein the first image processing apparatus is configured to process the image to convert image information to shape information.